IN THE CLAIMS

Please amend the claims as follows:

Claim 1. (Currently Amended) A camptothecin analog having the structure:

$$(CW_2)_n$$

$$X$$

$$Y$$

$$OR^7$$

$$O$$

$$O$$

$$I$$

$$R^{13}$$

١,

$$\begin{array}{c|c}
N & OR^7 \\
N$$

where

X and Y are each independently NO₂, NH₂, H, F, Cl, Br, I, COOH, OH, O-C₁₋₆-alkyl, SH, S-C₁₋₆ alkyl, CN, NH-C₁₋₆ alkyl, N(C₁₋₆-alkyl)₂, CHO, C₁₋₈-alkyl, N₃,

 $-Z-(CH_2)_a-N-((CH_2)_bOH)_2$, wherein Z is selected from the group consisting of O, NH and S, and a and b are each independently an integer of 2 or 3,

 $-Z-(CH_2)_a-N-(C_{1-6} \text{ alkyl})_2$ wherein Z is selected from the group consisting of O, NH and S, and a is an integer of 2 or 3, or

-CH₂-L, where L is halogen (F, Cl, Br, I), ${}^{+}N_{2}$, ${}^{+}(OR^{1})_{2}$, ${}^{+}S(R^{1})_{2}$, ${}^{+}N(R^{1})_{3}$, OC(O)R¹, OSO₂R¹, OSO₂CF₃, OSO₂C₄F₉, C₁₋₆ alkyl-C(=O)-, C₄₋₁₈ aryl-C(=O)-, C₁₋₆ alkyl-SO₂-, perfluoro C₁₋₆ alkyl-SO₂- or C₄₋₁₈ aryl-SO₂-, (where each R¹ independently is C₁₋₆ alkyl, C₄₋₁₈ aryl or C₄₋₁₈ ArC₁₋₆ alkyl); Θ F

-CH₂NR²R³, where (a) R² and R³ are, independently, hydrogen, $C_{1.6}$ alkyl, $C_{3.7}$ eyeloalkyl, $C_{2.7}$ eyeloalkyl, $C_{2.6}$ alkyl, $C_{2.6}$ alkenyl, hydroxy $C_{1.6}$ alkyl, $C_{1.6}$ alkyl, $C_{1.6}$ alkyl, $C_{3.7}$ cycloalkyl, $C_{3.7}$ cycl

 R^3 -taken together with the nitrogen atom to which they are attached form a saturated 3–7 membered heterocyclic ring which may contain a O, S or NR^5 -group, where R^5 is hydrogen, C_{1-6} -alkyl, perhalo C_{1-6} -alkyl, aryl, aryl substituted with one or more groups selected from the group consisting of C_{1-6} alkyl, halogen, nitro, amino, C_{1-6} -alkylamino, perhalo C_{1-6} -alkyl, hydroxyl C_{1-6} -alkoxy, C_{1-6} -alkoxy, C_{1-6} -alkyl and COR^6 -where R^6 -is hydrogen, C_{1-6} -alkyl, perhalo C_{1-6} -alkyl, C_{1-6} -alkoxy, aryl, and aryl substituted with one or more C_{1-6} -alkyl, perhalo C_{1-6} -alkyl, hydroxyl C_{1-6} -alkyl, or C_{1-6} -alkoxy C_{1-6} -alkyl groups;

 R^7 is H_{τ} or C(O) (CH_2)_m- NR^8R^9 , where m is an integer of 1–6 or $-C(O)CHR^{10}NR^8R^9$, where R^{10} is the side chain of one of the naturally occurring α amino acids, R^8 and R^9 are, independently, hydrogen, C_{1-8} alkyl or $-C(O)CHR^{11}NR^{12}R^{13}$ where R^{11} is the side chain of one of the naturally occurring α -amino acids and R^{12} and R^{13} -are each independently hydrogen or C_{1-8} alkyl;

W is independently H or F,

R¹³ and R¹⁴ are each H or combine to form a double bond:

and

n is an integer of 1 or 2,

and salts thereof.

Claim 2. (Original) The camptothecin analog of claim 1, wherein n is 1.

Claim 3. (Original) The camptothecin analog of claim 1, wherein Y is -CH₂-L.

Claim 4. (Original) The camptothecin analog of claim 1, wherein L is selected from the group consisting of Cl, Br and I.

Claim 5. (Cancelled)

Claim 6. (Original) The camptothecin analog of claim 1, which is selected from the group consisting of R isomers, S isomers and mixtures thereof.

Claim 7. (Original) The camptothecin analog of claim 6, wherein the analog is the S isomer.

Claim 8. (Original) The camptothecin analog of claim 6, wherein the analog is the R isomer.

Claim 9. (Original) The camptothecin analog of claim 6, wherein the analog is an S rich mixture of S and R isomers.

Claim 10. (Original) The camptothecin analog of claim 6, wherein the analog is a R rich mixture of S and R isomers.

Claim 11. (Original) The camptothecin analog of claim 6, wherein the analog is a racemic mixture of R and S isomers.

Claim 12. (Original) A method of treating leukemia or solid tumors comprising administering to a patient in need thereof, the camptothecin analog of claim 1.

Claim 13. (Original) A pharmaceutical composition comprising the camptothecin analog of claim 1.

Claim 14. (Original) A method for inhibiting the enzyme topoisomerase I, comprising contacting a DNA-topoisomerase I complex with the camptothecin analog of claim 1.

Claim 15. (Currently Amended) A method of preparing the camptothecin analog according to claim 1 comprising:

condensing a compound of formula IV or V

$$(CW_2)_n$$
 (IV)

$$X \xrightarrow{NH_2} O \qquad (V)$$

where X, Y, W and n are as defined in claim 1, with a tricyclic ketone of formula III

where R¹³ and R¹⁴ are as defined in claim 1 to form the camptothecin analog of claim 1.

Claim 16. (New) A camptothecin analog having the structure:

$$\begin{array}{c|c}
 & OR^7 \\
 & OR^$$

where

X is NO₂, NH₂, H, F, Cl, Br, I, COOH, OH, O-C₁₋₆ alkyl, SH, S-C₁₋₆ alkyl, CN, NH-C₁₋₆ alkyl, N(C₁₋₆ alkyl)₂, CHO, C₁₋₈ alkyl, N₃,

 $-Z-(CH_2)_a-N-((CH_2)_bOH)_2$, wherein Z is selected from the group consisting of O, NH and S, and a and b are each independently an integer of 2 or 3,

-Z- $(CH_2)_a$ -N- $(C_{1-6}$ alkyl)₂ wherein Z is selected from the group consisting of O, NH and S, and a is an integer of 2 or 3,

-CH₂-L, where L is halogen (F, Cl, Br, I), ${}^{+}N_{2}$, ${}^{+}(OR^{1})_{2}$, ${}^{+}S(R^{1})_{2}$, ${}^{+}N(R^{1})_{3}$, OC(O)R¹, OSO₂R¹, OSO₂CF₃, OSO₂C₄F₉, C₁₋₆ alkyl-C(=O)-, C₄₋₁₈ aryl-C(=O)-, C₁₋₆ alkyl-SO₂-, perfluoro C₁₋₆ alkyl-SO₂- or C₄₋₁₈ aryl-SO₂-, (where each R¹ independently is C₁₋₆ alkyl, C₄₋₁₈ aryl or C₄₋₁₈ ArC₁₋₆ alkyl); or

-CH₂NR²R³, where (a) R² and R³ are, independently, hydrogen, C₁₋₆ alkyl, C₃₋₇ cycloalkyl, C₃₋₇ cycloalkyl, C₁₋₆ alkyl, C₂₋₆ alkenyl, hydroxy C₁₋₆ alkyl, C₁₋₆ alkoxy C₁₋₆ COR⁴

Application No. 10/608,207
Reply to Office Action of June 1, 2004

where R^4 is hydrogen, C_{1-6} alkyl, perhalo C_{1-6} alkyl, C_{3-7} cycloalkyl, C_{3-7} cycloalkyl- C_{1-6} alkyl, C_{2-6} alkenyl, hydroxyl- C_{1-6} alkyl, C_{1-6} -alkoxy, or C_{1-6} alkoxy- C_{1-6} alkyl;

Y is SH, S-C₁₋₆ alkyl, NH-C₁₋₆ alkyl, -CHO, N₃,

-Z-(CH₂)_a-N-((CH₂)_bOH)₂, wherein Z is selected from the group consisting of O, NH and S, and a and b are each independently an integer of 2 or 3,

-Z- $(CH_2)_a$ -N- $(C_{1-6}$ alkyl)₂ wherein Z is selected from the group consisting of O, NH and S, and a is an integer of 2 or 3, or

-CH₂-L, where L is halogen (F, Cl, Br, I), ${}^{+}N_{2}$, ${}^{+}(OR^{1})_{2}$, ${}^{+}S(R^{1})_{2}$, ${}^{+}N(R^{1})_{3}$, OC(O)R¹, OSO₂R¹, OSO₂CF₃, OSO₂C₄F₉, C₁₋₆ alkyl-C(=O)-, C₄₋₁₈ aryl-C(=O)-, C₁₋₆ alkyl-SO₂-, perfluoro C₁₋₆ alkyl-SO₂- or C₄₋₁₈ aryl-SO₂-, (where each R¹ independently is C₁₋₆ alkyl, C₄₋₁₈ aryl or C₄₋₁₈ ArC₁₋₆ alkyl);

 R^7 is H;

R¹³ and R¹⁴ are each H or combine to form a double bond;

and

n is an integer of 1 or 2,

and salts thereof.

Claim 17. (New) A method of treating leukemia or solid tumors comprising administering to a patient in need thereof, the camptothecin analog of claim 16.

Claim 18. (New) A pharmaceutical composition comprising the camptothecin analog of claim 16.

Claim 19. (New) A method for inhibiting the enzyme topoisomerase I, comprising contacting a DNA-topoisomerase I complex with the camptothecin analog of claim 16.

Claim 20. (New) A method of preparing the camptothecin analog according to claim 16 comprising:

condensing a compound of formula IV or V

$$(CW_2)_n$$
 O (IV)

$$X$$
 Y
 Y
 Y
 Y
 Y
 Y
 Y
 Y

where X, Y, W and n are as defined in claim 16, with a tricyclic ketone of formula III

where R^{13} and R^{14} are as defined in claim 16 to form the camptothecin analog of claim 16.